



BREEAM NEW CONSTRUCTION 2011

SCHEME	BREEAM NEW CONSTRUCTION EDUCATION 2011
PROJECT	PURBROOK PARK SCHOOL
ADDRESS	PURBROOK PARK SCHOOL PARK AVENUE WATERLOOVILLE PO7 5DS
CLIENT	PURBROOK PARK SCHOOL
REPORT	Stage C Report
REVISION NUMBER	1
DATE	Feb-14
PROJECT NUMBER	9920/BRE
BRE REFERENCE	BREEAM-0051-4489
ASSESSOR	Andrew Hall



1.1 RESULTS

Section	Available	Environmental Weighting	Targeted	% Targeted	Targeted Weighted Score	Validated	% Validated	Validated Weighted Score
Management	22	12	14	63.64	7.64	0	0.00	0.00
Health and Well Being	15	15	12	80.00	12.00	0	0.00	0.00
Energy	25	19	7	28.00	5.32	0	0.00	0.00
Transport	7	8	4	57.14	4.57	0	0.00	0.00
Water	9	6	5	55.56	3.33	0	0.00	0.00
Materials	13	12.5	8	61.54	7.69	0	0.00	0.00
Waste	6	7.5	3	50.00	3.75	0	0.00	0.00
Land Use & Ecology	10	10	7	70.00	7.00	0	0.00	0.00
Pollution	13	10	7	53.85	5.38	0	0.00	0.00
Innovation	10		0		0.00	0		0.00
TARGETED SCORE		56.69 %	TARGETED RATING		VERY GOOD			
VALIDATED SCORE		0.00 %	VALIDATED RATING		UNCLASSIFIED			
MINIMUMS ACHIEVED			TARGETED	YES	VALIDATED	NO		



Project
Client
BRE Reference
Job Number
Date

PURBROOK PARK SCHOOL
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BREEAM-0051-4489
9920/BRE
41671.00

RECOMMENDATIONS

Credit			Available	Targeted	Possible	Unit	Uplift	
MAN 01	SUSTAINABLE PROCUREMENT	PROJECT BRIEF	1	0	1	0.55	0.55	%
MAN 03	CONSTRUCTION SITE IMPACTS	Transport of construction materials and waste	1	0	1	0.55	0.55	%
ENE 01	REDUCTION IN CO2 EMISSIONS		15	3	1	0.76	0.76	%
WAT 01	WATER CONSUMPTION		5	2	1	0.67	0.67	%
MAT 01	LIFE CYCLE IMPACTS	Second Credit	6	4	1	0.96	0.96	%
LE 04	ENHANCING SITE ECOLOGY		3	1	1	1.00	1.00	%
POL 01	IMPACT OF REFRIGERANT		3	0	1	0.77	0.77	%
POL 02	NOX EMISSIONS		3	0	1	0.77	0.77	%
					Total Possible Uplift		6.02	%
					Targeted Score		56.69	%
					Possible Score		62.71	%

RISK CREDITS

Credit			Available	Targeted	Possible Loss	Unit%	Risk	
MAN 03	CONSTRUCTION SITE IMPACTS	Construction site management	1	1	1	0.55	0.55	%
HEA 02	MINIMISING SOURCES' OF AIR POLLUTION	First Credit	1	1	1	1.00	1.00	%
		Second Credit	1	1	1	1.00	1.00	%
		Third Credit	1	1	1	1.00	1.00	%
TRA 01	PUBLIC TRANSPORT ACCESSIBILITY		3	1	1	1.14	1.14	%
					Total Possible Loss		4.69	%

1.2 SUMMARY

KEY

Validated
Withheld
Evidence Awaiting Assessment
Further evidence required
Not Applicable
Recommendation
Risk



Credit		Available	Targeted	Validated	Owner	Status	Minimum	Comments
MAN 01	SUSTAINABLE PROCUREMENT	8	6	0	0	Targeted	P	
	PROJECT DESIGN AND BRIEF	4	3	0	0	Targeted		
	First Credit	1	0	0	Architect	Possible		Credit may be possible please provide all Briefing documentation together with a training schedule and confirmation of project roles and responsibilities. (Please see Compliance Criteria MAN 01 Design Brief for further details)
	Second Credit	1	1	0	Assessor	Targeted		DBK Will produce relevant documentation
	Third Credit	1	1	0	Assessor	Targeted		DBK Will produce relevant documentation
	Forth Credit	1	1	0	Assessor	Targeted		DBK Will produce relevant documentation
	CONSTRUCTION AND HAND OVER	2	1	0	0	Targeted		
	First Credit	1	0	0	Withheld	Withheld		There is no requirement for the contractor to carry out a Thermographic Survey at completion. However if the appointed contractor were able to demonstrate compliance with the credit could be achieved at Post Construction Review.
	Second Credit	1	1	0	PM	Targeted		Written statement confirming "[Named Consultant] has been appointed to monitor and programme pre-commissioning, commissioning and, where necessary, re-commissioning on behalf of the client". Commissioning Schedule or specification clauses stating "All building services included in the commissioning schedule will be commissioned in line with current Building Regulations, BSRIA and CIBSE guidelines and other appropriate standard where applicable. The principal contractor will account for the commissioning programme, responsibilities and criteria within the main programme of works. and appoint specialist commissioning managers for all complex systems who's responsibilities include design input for commissionability, design reviews, commissioning management, construction programming, input during installation and management of commissioning, performance testing at handover"
	AFTERCARE	2	2	0	0	Targeted		
	First Credit	1	1	0	PM	Targeted		Statement in the Employers requirements "Seasonal commissioning will be completed over a 12 month period after occupation including testing of all building services under full load conditions mid-winter and mid-summer, and under part load conditions spring / autumn at periods of extreme high or low occupancy as applicable. Interviews with building occupants will be undertaken to identify problems or concerns regarding the effectiveness of the systems and re-commissioning of systems following any work needed to serve revised loads, will be incorporated into the O&M manuals. A review thermal comfort, ventilation, and lighting, will be carried out at three, six and nine month intervals after initial occupation, either by measurement or occupant feedback and reasonable steps as required to re-commission systems following the review to take account of deficiencies identified will be carried out".

	Second Credit	1	1	0	PM	Targeted		Written statement confirming "The school will collect energy and water consumption data for at least 12 months after occupation. This data will be compared with what was expected and an analysis of any discrepancies with a view of adjusting systems if they are not operating as expected designed will be carried out." Specification clause also required demonstrating the contractor is required to "arrange a meeting will occur as soon as possible after occupation to introduce the aftercare team go through the Building User Guide, present key information about how the building operates and answer questions and deliver on site FM training to include a walkabout of the building. Provide initial aftercare on a weekly basis for at least 4 weeks after handover and provide and a helpline, nominated individual or other appropriate system to support building users for at least the first 12 months of occupation"
MAN 02	RESPONSIBLE CONSTRUCTION PRACTICES	2	2	0	PM	Targeted	E	Specification Clause written statement required "The Main Contractor will register the site under the considerate constructors scheme and achieve a score between 35 and 39 with a minimum of 7 points in each section"
MAN 03	CONSTRUCTION SITE IMPACTS	5	4	0	PM	Targeted	~	
	Prerequisite		0	0	PM	Targeted		Specification Clause required "The Main Contractor is required to assigned to an individual to monitor, record and report or energy and water consumption resulting from the construction process who will have the authority to access the data required"
	Energy consumption	1	1	0	PM	Targeted		"Monitoring and recording of data for site energy consumption (kWh) from the use of construction plant, equipment and site accommodation necessary for completion of all construction processes will be undertaken and the collated energy consumption (total kWh and kWh/£100k of project value) and carbon dioxide emissions (total kgCO2eq and kgCO2eq/£100k of project value) from the construction process will be presented to the BREEAM Assessor at completion for inclusion in the final BREEAM Report"
	Water consumption	1	1	0	PM	Targeted		Monitoring and recording of data for site potable water consumption (m3) from the use of construction plant, equipment and site accommodation necessary for completion of all construction processes will be undertaken and the collated total net water consumption (m3), i.e. consumption minus any recycled water use from the construction process will be presented to the BREEAM Assessor at completion for inclusion in the final BREEAM Report""
	Transport of construction materials and waste	1	0	0	PM	Possible		Credit not sort However if the Main Contractor can provided relevant data the credit could be awarded at Post Construction Review
	Timber procurement	1	1	0	PM	Targeted		"All site timber used on the project will be sourced in accordance with the UK Government's Timber Procurement Policy."
	Construction site management	1	1	0	PM	Targeted		"This site will will be required to Implement best practice pollution prevention policies and procedures in compliance with the items in the Environmental Checklist section 2.5 Preventing Pollution in the England and Wales Environment Agency's 'Building a Better Environment2, a guide for developers" Confirmation will be required to confirm that the Main Contractors operates an Environmental management System developed in accordance with BS8555 2003 or holds ISO 14001 Certification (Pre Qualification Question).
MAN 04	STAKEHOLDER PARTICIPATION	4	2	0	0	Targeted		
	Consultation	1	0	0	Withheld	Withheld		Credit not sort. No DQI will be undertaken
	Inclusive and assessable design	1	1	0	Architect	Targeted		Access statement provided however it does not state it has been developed in line with the CABE publication Design & Access Statements. Will required written confirmation to complete validation

	Building User Information	1	1	0	PM	Targeted	E	Written Statement Required "A Building User Guide will be produced and provided and will be appropriate to all users of the building, including relevant staff, as well as the non technical facilities management team and building manager. The Guide will cover all functions and uses of the building, ensuring building users are able to use the building effectively. and will describe any shared facilities and how to access them. Building and site related information will be made readily available to all future building users, enabling them to access and use the building, site and local transport infrastructure/amenities effectively."
	Post Occupancy Evaluation (POE) and information dissemination	1	0	0	Withheld	Withheld		
MAN 05	LIFE CYCLE COST AND SERVICE LIFE PLANNING	3	0	0	withheld	Withheld	~	
	First Credit	1	0	0	withheld	Withheld		Credit not sort no LCC has been carried out
	Second Credit	1	0	0	withheld	Withheld		Credit not sort no LCC has been carried out
	Third Credit	1	0	0	withheld	Withheld		Credit not sort no LCC has been carried out
HEA 01	VISUAL COMFORT	3	2	0		Targeted	P	
	Prerequisite		y	0	M&E	Targeted		Specification Clause Required "All fluorescent and compact fluorescent lamps to be fitted with high frequency ballasts." [NOTE Pre requisite required to achieve any rating under BREEAM]
	Daylighting	1	0	0	Withheld	Withheld		Credit not sort. Unlikely to achieve Daylighting factor
	GLARE CONTROL, VIEW OUT AND INTERNAL AND EXTERNAL LIGHTING LEVELS	2	2	0		Targeted		
	Glare Control and View Out	1	1	0	Architect	Targeted		Written confirmation required stating "glare control strategy has been developed in tandem with the lighting strategy to ensure that glare is minimised whilst avoiding potential conflict with the lighting control systems",. Design drawings and Relevant section/clauses of the building specification or contract Window schedule confirming the measures included externally and internally to reduce glare and confirmation that all positions within relevant building areas are within 7m of a wall which has a window or permanent opening that provides an adequate view out. The window/opening must be ≥ 20% of the surrounding wall area
	Internal and External Lighting	1	1	0	M&E	Targeted		Specification Clause Required "Illuminance levels in all occupied spaces is specified in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. Where computer screens are regularly used, the lighting design will comply with SLL Lighting Guide 7, sections 3.3, 4.6, 4.7, 4.8 and 4.9. Illuminance levels for lighting in all external areas within the construction zone are specified in accordance with BS 5489-1:2013+A2:2008 Lighting of roads and public amenity areas."
HEA 02	INDOOR AIR QUALITY	4	4	0		Targeted		
	MINIMISING SOURCES' OF AIR POLLUTION	3	3	0	Architect / M&E	Targeted		
	First Credit	1	1	0	M&E	Targeted		Copy of the indoor air quality plan including a. Removal of contaminant sources, b. Dilution and control of contaminant sources, c. Procedures for pre-occupancy flush out, d. 3rd party testing and analysis Relevant section/clauses of the building specification or contract Design drawings
	Second Credit	1	1	0	Architect	Targeted		Specification Clause required "The VOC Content of finishing materials must be in compliance with the relevant British Standards where applicable as follows. Decorative paints and varnishes BS EN 13300:2001, Wood Panels EN 13986:2004, Timber Structures EN 14080:2005, Wood flooring EN 14342:2005, Resilient, textile and laminated Floor coverings EN 14041:2004, Suspended ceiling tiles EN 13964:2004, Flooring adhesive EN 13999-1:2007, Wall-coverings EN 233:1999, EN 234:1997, EN 259:2001, EN 266:1992, Adhesives for hanging flexible wall coverings BS 3046:1981." (NOTE Please see compliance criteria HEA01)

	Third Credit	1	1	0	Architect	Targeted	~	Requires specification clause "Formaldehyde concentration level will measured pre-occupancy and will be less than or equal to 100µg/m3 averaged over 30 minutes in line with BRE Digest 464 part 220. The total volatile organic compound concentration will be measured pre-occupancy and found to be less than 300µg/m3 over 8 hours, in line with the Building Regulation requirements. Where levels are found to exceed these limits, measures will be undertaken in accordance with the Indoor Air Quality Plan, to reduce the TVOC and formaldehyde levels to within the above limits. The testing and measurement of the above pollutants will be in accordance with BS EN ISO 16000-4: 2004 Diffusive sampling of formaldehyde in air, EN ISO 16000-6 VOCs in air by active sampling, BS EN 16017-2: 2003 VOCs - Indoor, ambient and workplace air by passive sampling, BS EN ISO 16000-3: 2001 formaldehyde and other carbonyls in air by pumped sampling. The measured concentration levels of formaldehyde (µg/m3) and TVOC (µg/m3) will be provided to the BREEAM Assessor for inclusion within the BREEAM Post Construction Review Report
	POTENTIAL FOR NATURAL VENTILATION	1	1	0	Architect	Targeted		Drawings confirming room locations, areas and uses together with a window schedule confirming Openable areas required.
	LABORATORY FUME CUPBOARDS AND CONTAINMENT AREAS	0	0	0	Not Applicable	Not Applicable		
HEA 03	THERMAL COMFORT	2	2	0		Targeted	~	
	First Credit	1	1	0	M&E	Targeted		Thermal modelling must be carried out using software in accordance with CIBSE AM11 1Building Energy and Environmental Modelling. The modelling must demonstrate that the building design and services strategy can deliver thermal comfort levels in occupied spaces in accordance with the criteria set out in CIBSE Guide A Environmental Design2 ; or other appropriate industry standard The software used to carry out the simulation provides full dynamic thermal analysis. The building must comply with any requirement, in terms of “time out of range” (TOR) metric, from the appropriate industry standard OR where there is no appropriate standard is available the building services engineer confirms that the TOR is acceptable for the purpose and function of the building. The TOR metric (%) is provided to the BREEAM Assessor for inclusion in the BREEAM Report
	Second Credit	1	1	0	M&E	Targeted		Drawing, Specification and Manufactures literature confirming the thermal modelling analysis has informed the temperature control strategy for the building and it's users. The strategy for proposed heating / cooling systems) demonstrates that it has addressed the following: Zones within the building and effective heating or cooling for the central core of a building compared with the external perimeter adjacent to the windows. Occupant control requirements of zoning, based on discussions with the end user and considering,: user knowledge of building services, occupancy type, patterns and room functions, user interact with the system, user expectations, how systems will interact with each other where there is more than one system and the need for an accessible building user actuated manual override for any automatic systems (if any).
HEA 04	WATER QUALITY	1	1	0		Targeted		
	Prerequisite		Y	Y	M&E	Targeted		Specification clause Required "all water systems are designed in accordance with the Health and Safety Executive's “Legionnaires' disease - The control of legionella bacteria in water systems”. Approved Code of Practice and Guidance, 2000 and confirmation that no humidification plant is incorporated into the design".

	Credit	1	1	0	M&E	Targeted	P	Drawings required showing Provision in safe and convenient locations e.g. dining/assembly halls, classrooms/common rooms, wide corridors, indoor social areas, changing rooms/gymnasia, concourse. Confirmation of building occupancy is required to confirm One compliant point-of-use water cooler is provided for every 200 building users Manufactures literature required to confirm coolers will be attached to both the wall and the floor to prevent vandalism, and contain security covers to protect all water and electrical connections
HEA 05	ACOUSTIC PERFORMANCE	3	2	0	0	Targeted	~	
	Prerequisite		Y	Y	Acoustic Engineer	Targeted		Letter required confirming "[Named Consultant] has been appointed to provide early advice on external sources of noise impacting the chosen site, site layout and zoning of the building for good acoustics, acoustic requirements for users with special hearing and communication needs and acoustic treatments of different zones and facades". [NOTE details of the Acoustic Engineers qualifications, professional memberships and number of years experience will also be required] This letter can also tie in POL 05
	First Credit	1	1	0	Acoustic Engineer	Targeted		Acoustic report required confirming indoor ambient noise level criteria for secondary schools in Section 1 of Building Bulletin 93 have been achieved. Where appropriate indoor ambient noise levels in all non-teaching spaces i.e. spaces/rooms not covered in BB93, comply with the "good practice" criteria levels of BS 82333:, Tables 5 & 6". For the purposes of acoustic measurement and calculation these spaces should be considered unoccupied. Written statement required from the Client confirming that "a programme of pre-completion acoustic testing, in accordance with the guidance set out in BB93 and the ANC Good Practice Guide, Acoustic testing of Schools, will be carried out by a compliant test body to ensure that the relevant spaces (as built) achieve the required performance standards. Where testing identifies that spaces do not meet the standards, remedial works will be carried out prior to handover and occupation."
	Second Credit	1	0	0	Withheld	Withheld		Credit not sort
	Third Credit	1	1	0	Acoustic Engineer	Targeted		Acoustic report required confirming Rain noise - For roofs with a mass per unit area less than 150kg/m2(lightweight roofs) or any roofs with glazing/rooflights, calculations or laboratory data are required for teaching/learning spaces to demonstrate that the reverberant sound pressure level in these rooms are not more than 20dB above the indoor ambient noise level for the equivalent type of room given in Table 1.1 of Building Bulletin 93 during heavy rain.
HEA 06	SAFETY AND SECURITY	2	1	0		Targeted	~	
	SAFE ACCESS	1	0	0	Withheld	Withheld		Credit not sort
	SECURITY OF THE SITE AND BUILDING	1	1	0	Architect	Targeted		Requires the appointment of a Suitable Qualified Security Consultant (Architectural Liaison Office) Correspondence from or a copy of the report/feedback from the ALO/CPDA/Security Consultant confirming: Scope of their advice/involvement The stage of design in which their advice was sought Summary of their recommendations Design drawings AND/OR relevant sections of the specification or contract confirming that the design embodies the recommendations/solutions of the suitably qualified security consultant and is built to conform to either : The principles and guidance of Secured by Design (SbD) and/or Safer Parking (SP) Scheme.
ENE 01	REDUCTION IN CO2 EMISSIONS	15	3	0	Energy Assessor	Targeted	E	Design stage SBEM calulations required together with the BRUKL output document and associated INP file is required
ENE 02	ENERGY MONITORING	2	1	0		Targeted		

	First Credit	1	1	0	M&E	Targeted	VG	Drawings and specification required showing the following major energy consuming systems (where present) are monitored using either a Building Energy Management System (BEMS) or separate accessible energy submeters with a pulsed output to enable future connection to a BEMS: Space Heating Domestic Hot Water Humidification Cooling Fans (major) Lighting Small Power (lighting and small power can be on the same sub-meter where supplies are taken at each floor/department). Other major energy-consuming items where appropriate Written statement required "the end energy consuming use of each sub meter will be identifiable to the buildinguser through labelling or data outputs."
	Second Credit	1	0	0	M&E	Targeted		Credit not sort
ENE 03	EXTERNAL LIGHTING	1	1	0	M&E	Targeted	~	Specification clauses and manufacture's literature required demonstrating "External light fittings are controlled through a time switch, or daylight sensor, to prevent operation during daylight hours" and "All lighting to the building, access ways and pathways is specified to have an efficacy of 50 Lumens / square meter with a colour rendering index of equal to 60, all lighting to car parking, associated roads and floodlight areas is specified to have an efficacy of 70 Lumens / square meter with a colour rendering index of equal to 60, all illuminated signs and uplighting will have an efficacy of 70 Lumens / square meter with a wattage of equal to 25 watts. All external light fittings are controlled through a time switch, or daylight sensor, to prevent operation during daylight hours."
ENE 04	LOW AND ZERO CARBON TECHNOLOGIES	5	0	0	Withheld	Withheld	E	Credits not sort
ENE 05	ENERGY EFFICIENT COLD STORAGE	0	0	0	Not Applicable	Not Applicable	~	Not Applicable

ENE 06	ENERGY EFFICIENT TRANSPORTATION	0	0	0	Not Applicable	Not Applicable	~	Not Applicable
ENE 07	ENERGY EFFICIENT LABORATORY EQUIPMENT	0	0	0	Not Applicable	Not Applicable	~	Not Applicable
ENE 08	ENERGY EFFICIENT EQUIPMENT	2	2	0	Client	Targeted	~	Written Confirmation required "All small power, plug in equipment will either qualifies for an [Enhanced Capital Allowance Scheme claim] OR [has been awarded an Energy Star rating] OR [has been procured in accordance with the Government Buying Standards] OR [has been identified as a products with a 'green tick' standard on the Buying Solutions website]." [NOTE one of the options is required to demonstrate compliance]
TRA 01	PUBLIC TRANSPORT ACCESSIBILITY	3	1	0	Assessor	Targeted	~	Initial Indications suggest that it may be possible to achieve a credit under Tra01 however confirmation of the number of services to the nearest bus stop is required to demonstrate compliance.
TRA 02	PROXIMITY TO AMENITIES	1	0	0	Assessor	Possible	~	Initial Assessment indicates that it may not be possible to achieve this credit. Therefore it has not been targeted
TRA 03	CYCLE FACILITIES	2	2	0		Targeted	~	
	Cycle Storage	1	1	0	Architect	Targeted		Confirmation of building occupancy required to confirm validation. Design drawings and/or relevant section/clauses of the building specification or contract. 1 Space pre 10 building occupancy (Students and Staff) is required to demonstrate compliance [NOTE a sliding scale applies and then number of staff and students and staff per space increases for occupants over 500. Please confirm the occupancy so that we can calculate the total number of required cycle spaces.]
	Cycle Facilities	1	1	0	Architect	Targeted		Drawings showing the location of changing space, confirmation of the number of showers and the number of lockers available is required. 1 Locker per cycle space is required to show compliance. 1 Shower per 10 cycle spaces is required.
TRA 04	MAXIMUM CAR PARKING CAPACITY	0	0	0	Not applicable	Not Applicable	~	Not Applicable
TRA 05	TRAVEL PLAN	1	1	0	Assessor	Targeted	~	A copy of the travel plan has been received and requires assessment
WAT 01	WATER CONSUMPTION	5	2	0	Architect	Targeted	G	[NOTE the following specification would achieve 2 credits "WC's Effective flush volume 4.5 ltr, Urinal Effective flush volume 3 ltr, Hand washing Taps 7.5 ltr/m @ 3 Bar Pressure, Showers 8 ltr/m @ 3 Bar Pressure, Kitchen taps 7.5 ltr/m @ 3 Bar Pressure."
WAT 02	WATER MONITORING	1	1	0		Targeted	G	
	Prerequisite		Y	0	M&E	Targeted		Relevant section/clauses of the building specification or contract Design drawings. Confirm inclusion of a water meter to the incoming water main to the building.
	Credit	1	1	0	M&E	Targeted		To achieve the first credit all building areas using 10% or more of the total buildings water supply must be fitted with sub meters. All Meters must be fitted with pulsed output and must be connected to BMS (If BMS is installed)
WAT 03	WATER LEAK DETECTION AND PREVENTION	2	1	0		Targeted		
	First Credit	1	0	0	Withheld	Withheld		Credit Not Sort

	Second Credit	1	1	0	M&E	Targeted	~	3. One of the following types of flow control device is fitted to each WC area/facility to ensure water is supplied only when needed (and therefore prevent minor water leaks): a. A time controller i.e. an automatic time switch device to switch off the water supply after a predetermined interval b. A programmed time controller i.e. an automatic time switch device to switch water on and/or off at predetermined times. c. A volume controller i.e. an automatic control device to turn off the water supply once the maximum preset volume is reached. d. A presence detector and controller i.e. an automatic device detecting occupancy or movement in an area to switch water on and turn it off when the presence is removed. e. A central control unit i.e. a dedicated computer-based control unit for an overall managed water control system, utilising some or all of the types of control elements listed above.
WAT 04	WATER EFFICIENT EQUIPMENT	1	1	0	Architect	Targeted	~	Documentation detailing the planting and irrigation strategy, Relevant section/clauses of the building specification AND/OR design drawings confirming an irrigation method specified for internal or external planting and/or landscaping complies with ANY ONE of the following: a. Drip feed subsurface irrigation that incorporates soil moisture sensors. The irrigation control should be zoned to permit variable irrigation to different planting assemblages. b. Reclaimed water from a rainwater or greywater system. The storage system must be appropriately sized i.e. storage capacity is relative to the size of the soft landscaped area. c. External landscaping and planting that relies solely on precipitation, during all seasons of the year. d. All planting specified is restricted to species that thrive in hot and dry conditions. e. Where no dedicated, mains-supplied irrigation systems (including pop-up sprinklers and hoses) are specified and planting will rely solely on manual watering by building occupier or landlord.
MAT 01	LIFE CYCLE IMPACTS	6	4	0	Architect	Targeted	~	Drawings and specification confirming the specification of External walls, windows, roof, internal walls and floor coverings together with a schedule of areas is required to complete the credit validation.
MAT 02	HARD LANDSCAPING AND BOUNDARY PROTECTION	1	1	0	Architect	Targeted	~	Drawings and specification confirming the specification of hard landscaping and boundary protection together with a schedule of areas is required to complete the credit validation.
MAT 03	RESPONSIBLE SOURCING OF MATERIALS	3	0	0	PM	Targeted	P	Specification clause could be added to the ER's requiring the main contractor to provide Chain of custody certification together with a breakdown of the materials used in the major building elements with relevant volumes or areas. No credits targeted at interim assessment. This will allow the contractor the opportunity to achieve further credits at Post Construction Review without imposing requirements that may not be possible..
	Prerequisite		Y	0	PM	Targeted		Specification Clause required. "All timber used on this project will be sourced in accordance with the UK Government's Timber Procurement Policy and the Main contractor will be required to provided relevant accreditation to demonstrate compliance.
MAT 04	INSULATION	2	2	0		Targeted	~	
	Prerequisite		Y	0	Architect / M&E	Targeted		Specification confirming the specified insulation materials for External Walls, Roof, Ground Floor Slab and Building Services is required together with manufactures information, confirmation of thermal conductivity, areas and volumes.
	Embodied Impact	1	1	0	Assessor	Targeted		The evidence provided must confirm the embodied impact of each insulation material. This is confirmed using the BRE Mat 04 Calculator Tool
	Reasonable Sourcing	1	1	0	Assessor	Targeted		The evidence provided must confirm responsible sourcing of each insulation material. This is confirmed using the BRE Mat 04 Calculator Tool

MAT 05	DESIGNING FOR ROBUSTNESS	1	1	0	Architect	Targeted	~	Design drawings illustrating vulnerable areas/parts of the building. Design drawings and/or relevant section/clauses of the building specification or contract confirming the durability measures specified.
WST 01	CONSTRUCTION WASTE MANAGEMENT	4	2	0		Targeted	O	Compliance requires production of a Site Waste Management plan allowing early decisions within the design process to ensure that measures can be taken by design team to reduce waste generated during construction. (Note: where demolition works are included as part of the main scope of works the SWMP must include a detailed demolition audit to ensure minimisation of waste materials and promote reuse and recycling of demolition material where possible)
	Construction Recourse Efficacy	3	1	0	PM	Targeted		To achieve credits waste generation must be minimized to a target benchmark calculated by either weight or volume per 100m2 of floor area. The Plan must include procedures for managing waste streams both hazardous and non hazardous and include details of how waste is to be minimised in line with the BREEAM model (BRE SMART waste can be used to produce the required plan) and the plan must be produced at early design stage so that the implantations can be considered as part of the design process
	Additional Credit	1	1	0	PM	Targeted		The Site Waste Managmeent Plan must also set out requirements for diverting at least 75% by volume of waste generated during construction from landfill
WST 02	RECYCLED AGGREGATES	1	0	0	Withheld	Withheld	~	Credit not sort
WST 03	OPERATIONAL WASTE	1	1	0	PM	Targeted	E	Storage space must be set aside for the storage of recyclable waste. The area must be 2m2 per 1000m2 of floor area (New Building or site wide can be used) up to a maximum of 10m2. The area must be clearly labelled for recycling. In addition the school have a recycling policy covering the management of paper and magazines, cardboard, plastics, metals, printer & toner cartridges as a minimum,. If composting facilities are included in the design the policy must also include this.
LE 01	SITE SELECTION	2	1	0		Targeted	~	
	Previously Developed Land	1	1	0	Architect	Targeted		Drawings of the site as existing and as proposed are rquired together with a scheulde of floor areas are requiried confirming 75% of the proposed development's footprint is on an area of land which has previously been developed for use by industrial, commercial or domestic purposes in the last 50 years.
	Contaminated Land	1	0	0	Withheld	Withheld		Credit not possible
LE 02	ECOLOGICAL VALUE	1	1	0	Ecologist / Architect	Targeted	~	Drawings of the site as existing and as proposed are queried and / or a copy of an Ecology report completed by a suitably qualified ecologist.
LE 03	MITIGATING ECOLOGICAL IMPACT	2	2	0		Targeted	VG	Drawings and a schedule of areas showing the site as existing and as proposed OR confirmation of land types and areas provided by a Suitably Qualified Ecologist would be needed to demonstrate compliance
	First Credit	1	1	0	Ecologist / Architect	Targeted		If evidence provided demonstrate a change in ecological value of less than 9 plant species.
	Second Credit	1	1	0	Ecologist / Architect	Targeted		If evidence provided demonstrate no negative change in the number of plant species on site.
LE 04	ENHANCING SITE ECOLOGY	3	1	0		Targeted	~	o achieve these credits a Suitable Qualified Ecologist must be appointed.
	First Credit	1	1	0	Ecologist	Targeted		The Ecologist must provide an ecology survey report based on the findings of a site visit and the report must have been produced prior to any works being undertaken on site under the scope of works for this development. The report must also include recommendations for improving site ecology and there must be a written commitment to implement these recommendations as part of the design works. Written statement required confirming that "the recommendations made within the ecology report will e implemented on site." The statement must be supported by drawings
	Second Credit	1	0	0	Not Sort	Possible		Credit not sort however if evidence provided confirms an increase in the number of plant species of up to 6 the second credit may be achieved.

	Third Credit	1	0	0	Not Sort	Possible		Credit not sort however if evidence provided confirms an increase in the number of plant species of over 6 the second credit may be achieved.
LE 05	LONG TERM IMPACTS ON BIODIVERSITY	2	2	0	Ecologist	Targeted	~	To achieve these credits both the mandatory and 4 of the additional compliance criteria must be met. This requires the Ecologist to be appointed to provide advice on complying with UK and EU legislation during construction and to monitor any productive or mitigation works required to protect site ecology within the construction zone or along the site boundary. The ecologist must provide a management plan covering 5 years after completion and confirm that the measures put in place are in line with the UK Biodiversity action plan. The additional criteria require action from the contractor during construction to monitor and control protective measures, train relevant site personnel with the aid of the ecologist and report on any actions taken in the site log book. The Client must also confirm the requirement to provide an increase in habitat for indigenous wild life
POL 01	IMPACT OF REFRIGERANT	3	0	0	M&E	Possible	~	Credit not targeted as it is likely that refrigerants will be included within the design. However it may be possible to achieve some of the available credits depending on the specification of refrigerant material. Manufactures literature will be required to run the BRE Calculations and confirm if credits can e achieved. If no refrigerants are specified then the credits can e awarded by default.
POL 02	NOX EMISSIONS	3	0	0		Possible	~	
	Prerequisite		0	0	M&E	Possible		
	Credits	3	0	0	M&E	Possible		Credits not sort. It is likely that the specification of the heating system will make these credits difficult to achieved. Details of the heating system will e required to confirm
POL 03	SURFACE WATER RUN OFF	5	5	0		Targeted	~	Requires appointment of a specialist consultant to produce a Flood Risk Analysis report for the site and provide detailed calulations showing peak flow rates as existing and as proposed. The report must also confirm that no increase in peak flood rain water run off will occur as a result of development or provided recommendations on how any increase can be attenuated. A written commitment to include the attenuation measures will be required to demonstrate compliance
	Flood Risk	2	2	0	Awarded	Targeted		Initial indications suggest that the site is located in an area of low annual probability of flooding. However there is some evidence of flooring close to the site and a site specific flood risk analysis is required to confirm this. (The report must consider specific flood risks from all applicable water sources).
	Surface Water Run Off	2	2	0	Awarded	Targeted		Compliance requires the appointment of a specialist consultant to provided detailed calulations and design advice
	Prerequisite	Y	0	0	Awarded	Targeted		A specialist consultant must be appointed. A copy of the letter of appointment is required to show compliance
	First Credit	1	1	0	Engineer	Targeted		The specialist consultant must provide a report containing calulations showing that the peak flow rainwater run off from the site as proposed will not increase from that of the existing site. If peak flow will increase then recommendations are required for attenuation measures and the attenuation must be included into the site drainage scheme. The design must also include an allowance for climate change
	Second Credit	1	1	0	Engineer	Targeted		The design must demonstrate that the site will not be at risk of flooding due to local drainage system failure
	Minimising Water Course Pollution	1	1	0	Engineer	Targeted		Drawings and specification confirming details of the draining system are required showing mitigation measures (if required) to prevent pollution of local water courses. For example installation of petrol interceptors for large car parking areas or use of infiltration trenches or beds to trap silts and organics etc can be provided it may be possible to achieve the credit.

POL 04	REDUCTION OF NIGHT TIME LIGHT POLLUTION	1	1	0	M&E	Targeted	~	Written specification confirming that " the external lighting design is in compliance with the ILP Guidance notes for the reduction of obtrusive light, 2011 controlling spill, wash and glare. The external lighting scheme will be capable of being switched off between 23:00 and 07:00 hours and security lighting will be able to be switched to a reduced level of operation between these hours. Illuminated signs will comply with the guidance set out in ILE Technical Report 5 – The Brightness of Illuminated Advertisements"
POL 05	NOISE ATTENUATION	1	1	0	Acoustic Engineer	Targeted	~	An Acoustic Engineer must be appointed to carry out a noise impact survey for an area of 800m from the site to determine background ambient noise levels at the nearest noise sensitive points and determine is any mitigation measures would be required to ensure that the development does not increase back ground noise levels once operational. If the findings of the report indicate an increase then recommended mitigation measures are required and these must be incorporated into the buildings design in order to comply.

INNOVATIONS CREDITS

Credit		Available	Targeted	Validated	Owner	Status	Minimum	
MAN 01	SUSTAINABLE PROCUREMENT	1	0	0	Withheld	Withheld	~	
MAN 02	RESPONSIBLE CONSTRUCTION PRACTICES	1	0	0	Withheld	Withheld	~	
HEA 01	VISUAL COMFORT	1	0	0	Withheld	Withheld	~	
ENE 01	REDUCTION IN CO2 EMISSIONS	1	0	0	Withheld	Withheld	~	
ENE 04	LOW AND ZERO CARBON TECHNOLOGIES	1	0	0	Withheld	Withheld	~	
MAT 01	LIFE CYCLE IMPACTS	1	0	0	Withheld	Withheld	~	
MAT 03	RESPONSIBLE SOURCING OF MATERIALS	1	0	0	Withheld	Withheld	~	
WST 01	CONSTRUCTION WASTE MANAGEMENT	1	0	0	Withheld	Withheld	~	
WST 02	RECYCLED AGGREGATES	1	0	0	Withheld	Withheld	~	